

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



LIBRARY  
RECEIVED

Vol. XII

APRIL, 1906.

No. 7.

Department of Agriculture.

# THE AGRICULTURAL STUDENT



IF IT'S A  
**DE LAVAL**  
that's all you need to know about a  
**CREAM SEPARATOR**

Send for Catalogue and Name of nearest Local Agent

**THE DE LAVAL SEPARATOR CO.**

Randolph and Canal Streets, CHICAGO.

74 Cortlandt Street, NEW YORK.

5¢  
PER  
COPY

-A-  
MONTHLY MAGAZINE  
DEVOTED TO  
AGRICULTURAL  
EDUCATION

50¢  
PER  
YEAR



# GRAND SWEEPSTAKES

## CREAMERY SWEEPSTAKES

## DAIRY SWEEPSTAKES

**OHIO**  
**Grand Sweepstakes**  
**Creamery Sweepstakes**  
**Dairy Sweepstakes**

at the Ohio State Dairymen's  
 Convention held at Dayton,  
 Jan. 24-26. Creamery score  
 97½, Farm Dairy 97.

**WISCONSIN**  
**Grand Sweepstakes**

at the Wisconsin State Dairy-  
 men's Convention at Wauke-  
 sha, Jan. 30-Feb. 2. Score 97½.

**CONNECTICUT**  
**Grand Sweepstakes**

at Connecticut State Dairy-  
 men's Convention at Hartford,  
 Jan. 17-18. Score 98.

**MAINE**  
**Dairy Sweepstakes**

at Maine State Dairymen's  
 Convention at Pittsfield, Dec.  
 5-7. Score 97¾.

**The United States Separator Holds World's Record for  
 Closest Separation of cream, and above is another of the many  
 lists of victories which show that**



**The United States Separator  
 Delivers the Cream in Smooth-  
 est and Best Condition to make  
 the finest quality of butter.**

**Free Catalogue on Application.**

**Vermont Farm Machine Co.**

**BELLOWS FALLS, VT.**

**18 distributing warehouses throughout the  
 U. S. and Canada.**

# Eclipse Hocking Coal

PRODUCED BY

## Johnson Coal Mining Co.

General Office: Spahr Building

Yard Office: 400 West Broad St.

COLUMBUS, OHIO

Telephones—Bell, Main 215      Citizens 6439

Also Dealers in

**Anthracite, Smithing, Coke, &c.**

FRANK C. KELTON.

WADE CONVERSE

**Kelton & Converse,**

Dealers in

**Lumber, Lath, Shingles,**

Doors, Sash, Blinds,  
Door and Window Frames,  
Mouldings, Etc.

Cor. Spring and Water Sts.

COLUMBUS, O.

Telephone No. 279.

**BLACKWOOD,  
GREEN & CO.**

**HARDWARE**

STOVES AND HOUSE  
FURNISHING GOODS.

SLATE and METAL ROOFING

624 North High Street,  
Columbus, Ohio.

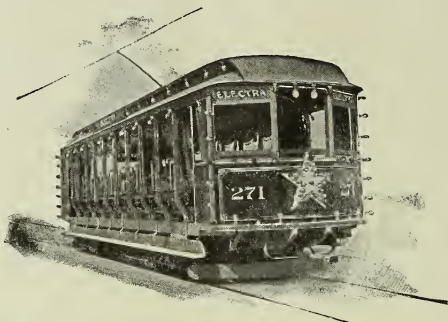
**BRADSHAW, THE STUDENTS DRUGGIST**  
— KING AVENUE, NEAR NEIL —

When writing to Advertisers, mention THE STUDENT

# THE COLUMBUS RAILWAY AND LIGHT CO.

**The Car Service** Cannot be excelled by any Street Railway in a city of like population. All lines center in the heart of the city and extend in all directions to the suburbs. The lowest rates of fare of any city in the United States. Trolley parties specially cared for by chartered cars.

OHIO STATE  
UNIVERSITY IS  
REACHED DIRECT  
BY EITHER  
HIGH STREET  
OR  
NEIL AVENUE  
LINES



THE LOWEST  
FARE IN  
THE COUNTRY.  
TRANSFERS  
TO ANY PART  
OF THE  
CITY

**Every State Institution,** Hospital, Cemetery, City Park, Hotel, Depot, Principal Business House, and all the various points of interest to be desired are reached or passed by cars of this Company. Operates and controls the lines to Westerville and Arlington. The latter are delightful suburban rides.

## Smith's Academies of Dancing Oldest; Largest, Best.

Special Students Classes on  
Friday and Saturday Evenings.

Main Office: High and Gay Sts. Both Phones.



# Prof. W. J. Rader's

## ART ACADEMY OF DANCING



199½ SOUTH HIGH STREET

BOTH PHONES

Will organize another beginners' class Friday evening, February 9th,  
7:30 o'clock. First lesson.

Open nights, Thursday and Saturday evenings, for the advance.

---

NEIL AVENUE ACADEMY, 647 Neil Avenue

BOTH PHONES

Open night, Saturday evening, for the advance.

---

OAK STREET ACADEMY, 827 Oak Street

PHONES—CIT. 4431. BELL 6189.

Academies can be secured for fraternity hops, club dances, etc.

# OHIO STATE UNIVERSITY COLUMBUS, OHIO

## Six Colleges:

AGRICULTURE AND DOMESTIC SCIENCE

Homer C. Price, M. S., Dean

ARTS, PHILOSOPHY AND SCIENCE

Joseph V. Denney, A. B., Dean

ENGINEERING

Edward Orton, Jr., E. M., Dean

LAW

Joseph H. Outhwaite

PHARMACY

George B. Kauffman, B. Sc., Dean

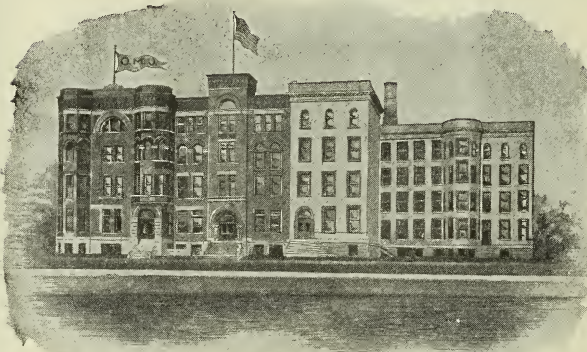
VETERINARY MEDICINE

David S. White, D. V. M., Dean

**WILLIAM OXLEY THOMPSON, LL. D., D. D., President.**

---

## Ohio Medical University.



**Colleges of MEDICINE, DENTISTRY  
and PHARMACY.**

Four years' graded course  
in Medicine, three in Dent-  
istry and two in Pharmacy.  
Annual sessions thirty-four  
weeks.

**All Instruction except Clinical, by  
the Recitation Plan.**

Students are graded on their daily recitations, term and final examinations. Large class rooms designed for the recitation system. Laboratories are large, well lighted and equipped with practical, modern apparatus. Abundant clinical facilities in both Medical and Dental departments.

**Sessions for 1905-1906, in all Colleges, begins Tuesday, September 12th, 1905.**

For catalogue and other information address:

**GEO. M. WATERS, M. D., Dean,**  
College of Medicine.

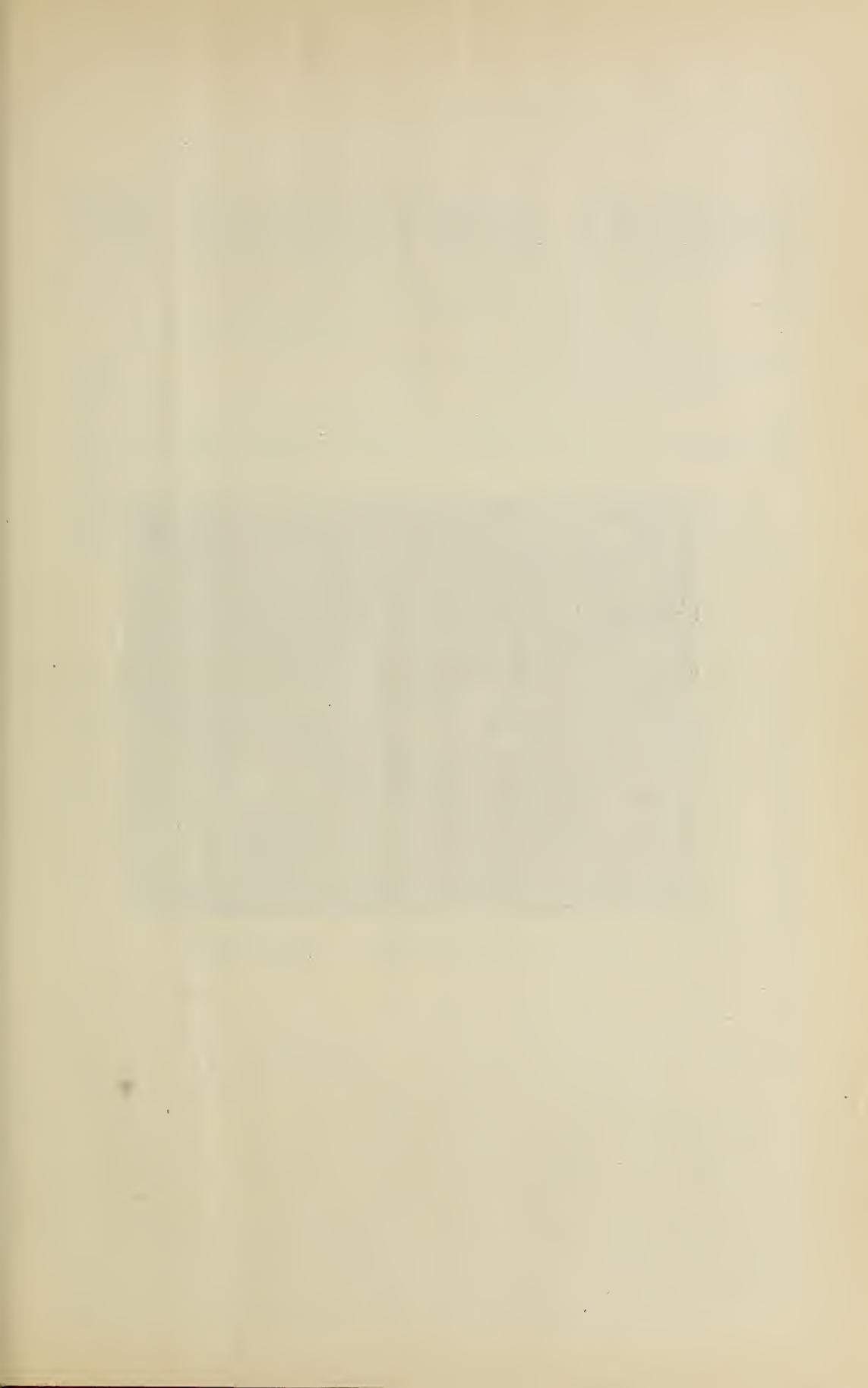
**L. P. BETHEL, D. D. S., Dean,**  
College of Dentistry.

**GEO. H. MATSON, G. PH., Dean,**  
College of Pharmacy.

**Ohio Medical University**

**700-714 N. PARK ST.,  
COLUMBUS, - OHIO.**







DOMESTIC SCIENCE LABORATORY—HAYES' HALL

# THE AGRICULTURAL STUDENT.

VOL. XII. OHIO STATE UNIVERSITY, COLUMBUS, APRIL, 1906 No. 7

TERMS OF SUBSCRIPTION:	
One Year.....	\$0.50
One-half Year.....	.30
Single Copies.....	.05

While this magazine is published with the approval of the President of the University and the Officers of the College of Agriculture and Domestic Science, the editors are responsible for the statements in all unsigned articles.

Address all communications to the Business Manager, Agricultural Student, Columbus, Ohio.

Entered at the Post-Office, Columbus, Ohio, as second-class matter.

PUBLISHED MONTHLY BY  
**THE AGRICULTURAL STUDENT**  
PUBLISHING COMPANY.

CHAS. D. HYATT.....Editor  
ALFRED VIVIAN.....Advisory Editor  
VERNON H. DAVIS.....Business Manager

STAFF.	
E. J. Kitchen	S. H. Shawhan
N. E. Shaw	L. E. Call
F. D. Heckathorn	H. C. Ramsower

## CONTENTS

Editorial Comment .....	135
Professor Hayes Visits O. S. U. ....	137
Students Visit Noted Sheep Breed- ers .....	137
Subjects of Theses—Class of 1906 ..	138
O. S. U. Wins Debate With Indiana —Loses With Illinois .....	139
Professor Heller Dead .....	139
Ohio Agricultural Experiment Sta- tion—How to Fight Grasshop- pers .....	140
Truck Farming in the South .....	141
American Horses .....	143
National Dairy Show .....	145
U. S. Department of Agricultural, Bureau of Forestry—A Porto Rico Forest Reserve .....	146
Vets Banquet .....	148
University News .....	151
Agricultural News .....	152
Alumni Notes .....	153
United States Department of Agri- culture, Forest Service—Some Forest Possibilities .....	155
Napanoch Pocket Knife Tool Kit ..	156

## EDITORIAL COMMENT

We notice that the Agricultural Department has granted a certain sum of money to found a breeding plant in Vermont for Morgan horses, the object being to produce high class mounts for the United States cavalry. People are finding out that they made a great mistake when they quit breeding this little horse. "He is too small," they would say. But how are you going to measure him? Justin Morgan, the founder of this breed, weighed something less than 1000 pounds, was about fourteen hands high, yet he could "out-trot, out-run or out-pull" any other horse with which he came in contact. Physically he was small; in his ability to accomplish any difficult feat he was a giant. But the Morgan of today is much larger than that of several years ago.

Now we are heartily in favor of this move and we hope that the farmers, in seeing the interest manifested by the government in this work, will also take it up for there is a place for the well-bred Morgan. Their early popularity is well illustrated in the following ode to Ethan Allen, written by "Adirondack Murray," the great student of nature:



"Remember thee, thou king of Morgans! The green grasses of her summers will wither into ashes and the snows of her winters will melt under the fires that bring the end of the world, before the sons and daughters of Vermont will forget thee, thou eagle of her hills; thou pride of the Green mountains."

---

A bill for the "Encouragement of Better Breeding of Horses in Ohio" is at present before the House. This bill has been indorsed by the State Board of Agriculture, Ohio Live Stock Association and farmers in general who are interested in the improvement of horses. It provides that all stallions used in service shall be examined by competent inspectors, they to be appointed by the State Board of Live Stock Commissioners. Those horses found free from "unsoundness and transmissible diseases" and that have reached the age of two years, shall be licensed for service. Two classes are provided for: Class A, pure bred registered stallions; class B, grades and those not registered. The license fee is to be \$25 and this expires at the end of each February.

We have for a long time needed just such a law in Ohio as this will be if it receives the proper support. "Like begets like" and it is a characteristic of nature that she transmits to offspring the evil as well as the good points. Hence the importance of this bill.

---

It is a fact, as every one knows, that the Postoffice Department of the United States has not been self-supporting. But why wasn't it? One reason is that there is abuse in this as well as all other lines in which there are benefit features. The act providing free delivery of printed matter if the congressman's name appear on the outside of the envelope, was made in good faith and for a good purpose,

but the object has not been very well carried out. It is said that there are cases on record where the above law-maker has been known to send home through this privilege such bulky articles as bookcases, clothing and so on. And it is further claimed that this "franking privilege" together with its abuses has cost the government annually between \$15,000,000 and \$20,000,000, and that the abuse makes up a large part of this sum; that were it not for this the department would come out even at the end of the year.

Now it is impossible to say just what proportion of this amount can be accredited to "abuses," but from complaints now on file it is supposed to be no small sum. In the annual appropriation for postoffices this year \$192,000,000, Congress has prohibited the shipment of any other than actual mail matter through the mails. This will go a long way toward correcting the above evil.

---

Although athletics at Ohio State did look pretty doubtful for a while, and there appeared to be quite a number among the student body who didn't really care whether we had athletics or not—yet conditions at present are looking much brighter. The attendance, as well as the interest manifested, in the last few basketball games and track meets shows that the old spirit is not dead at all. Nothing helps out a college like a winning team and nothing helps a team to win like the college back of it. O. S. U. is stronger for having defeated Indiana, the first time that that institution has ever met with defeat from such source; and the team, on the other hand, was encouraged to win by the support of the student body. Since the two go together then here's hoping that we experience no more deadlocks such as we had a short time ago.

It has often been said that mules bring better prices on the market than horses, quality on both sides being considered. We have been inclined to doubt this statement and to bear us out we will quote prices on the St. Louis National Stock Yards, the greatest mule market in the country.

These sales were by the McFarlane Commission Company and held during the last week of February: Thirty-one mules 13 to 14.1 hands, fair, \$97.50 per head; twenty mules, 13.3 to 14.2 hands, thin, at \$100; twenty-four, 13 to 14 $\frac{1}{4}$  hands, fat at \$105; sixteen about 14.2 hands, good flesh, at \$120; twenty-one about 15 $\frac{1}{4}$  hands, fair, at \$147.50; twenty-five 15 $\frac{1}{4}$  to 15.2 hands, fair at \$157.50; thirty, 15 $\frac{1}{4}$  to 16 hands, some extra good at \$182.50; and forty-two, 15.2 to 16 hands, some extra good, at \$195 per head:

#### **Professor Hayes Visits O. S. U.**

W. M. Hayes, Assistant Secretary of Agriculture, stopped over for a short time Thursday evening, March 15, and addressed the students of the college of Agriculture. He spoke under four general headings: First, Coöperation among farmers to bring about more stable prices and a better condition between labor and capital. Second, Organization to bring about better farming. Third, The production of better plants and animals through wise selection and breeding, and fourth, Process of developing better boys and girls, under which heading mention was made of the excellent work now being carried on by Professor Graham in the agricultural extension work.

Professor Hayes had come to the University to confer with Professor Graham in regard to the work now being carried on by the latter.

#### **Students Visit Noted Sheep Breeders**

F. L. A.

Friday morning, March 9, Professors Plumb and Gay, with a party of twenty students, members of the class of animal husbandry, took the 9:45 train to Marysville to visit two or three of the leading sheep men of Ohio. The weather, although not so favorable in the morning, proved to be almost ideal for a trip of this kind.

Alighting at Marysville we were met by Mr. Wilbur and were driven to his home not far from the depot. Our time being limited, Mr. Wilbur took us direct to the refrigerator, where several lambs hung already dressed and ready to ship. From here we went to the sheep barn, which had a ground floor of about 40 by 80 or 90 feet. This space was divided up into several pens; those for the dry ewes, ewes with young lambs and ewes with lambs of a more mature age. There were also pens where all the lambs could go at will by means of creeps, where they could enjoy all the corn and oats of equal parts flavored with brown sugar that they would eat.

There were a few motherless lambs which were doing fairly well, they being suckled on ewes that were being dried up. This drying up process lasts for one week, the grain being taken away from the ewes as soon as the lambs are slaughtered for market. When they stop giving milk they are put with the flock of dry ewes and fed a common ration.

The mangers and feed troughs are all so constructed that the sheep cannot breathe on the hay that they do not consume and the grain is all distributed in the troughs before any of the sheep are allowed to the feed trough. In this way each one gets her share. Alfalfa hay, silage, corn and oats are the feeds given. All the sheep were in good condition and

showed good management and care. Everything was convenient and economical, not fancy or showy.

By the time the methods of breeding, care, slaughtering, and marketing of the lambs were explained the dinner bell rang and a good lamb dinner was served, after which Mr. Wilbur sang a few songs and then we all went to see the process of slaughtering the lambs. This seen, we were driven to the sugar camp of 130 trees and enjoyed the fruits of the same. From here we went to another farm where we found more sheep, being cared for after the same fashion as described above.

Time passing, we drove to Mr. Max Chapman's, a Rambouillet breeder of world renown. Mr. Chapman has just located at his present home and has everything neat and up to date. He has several sheep on hands all in prime condition. His next door neighbor, his father, is breeding the Delaines. His sheep are first class stuff and are now right in the height of lambing. Mr. Chapman's sheep looked over we found that the train was soon due. A few of the old familiar yells were given for the men whose hospitality and time we had enjoyed and all took the train for our old stamping ground, Columbus.

#### Subjects of Theses—Class of 1906

"Butter Markets of Columbus," by Fred E. Address.

"Fecundity of Swine," Francis L. Allen.

"Alfalfa Compared With Bran as a Concentrate for Feeding Sheep," Joseph A. Main.

"Dairy Butter Markets of Columbus," Wm. L. Clevenger.

"The Origin and Development of the Delaine Merino," James W. Hammond.

"The Preservation of Barnyard Manure," Ray C. Doneghue.

"The Prepotency of the Morgan Horse," Chas. D. Hyatt.

"The Origin and Development of the Percheron," George T. Snyder.

"The Origin of the Poland China," Robert C. E. Wallace.

"Insects Injurious to Willows," R. W. Harned.

"The Quality of Columbus Milk," E. L. Bowser.

"The Effect of the Interurban Lines on Lorain County," Garfield J. Wilder.

"The Amount of Moisture in Butter," Edgar D. Holl.

"Insects Affecting the Poplar," Robert A. Young.

"Balanced Ration for Swine," C. Louie Miner.



CAMPUS SCENE



"A Study of Some Soil Nitrogen Bacteria," Ernest D. Waid.

"Cover Crops," Norman E. Shaw.

"Composition of Eight Varieties of Grapes Found on the American Market," E. I. Lichti.

"A Study of Mosquitoes," William Evans.

"Insects Affecting Stored Grain," Fred E. Haymaker.

"Some Phases of the Sheep Industry of the West," Burton L. West.

"Soil Survey of Stowe Township, Summit County, Ohio," Leland E. Call.

"Soil Survey of Licking Count, Ohio," joint thesis by Harry C. Ramsouer and Isaac S. Cook.

#### **O. S. U. Wins Debate With Indiana— Loses With Illinois**

The Indiana debating team was met in the O. S. U. chapel by Ohio States' men on Friday evening, March 9, the result being a victory for the latter. The question for debate was, "Resolved, That the interests of the people would be best subserved by the enactment of federal legislation regulating the life insurance business." Ohio State took the affirmative and was represented by Ward B. Shepard, first speaker, J. D. Withgott, second speaker, and Rush M. Greenslade, third speaker. R. S. Hengst was selected as alternate.

At Illinois University on the same evening Ohio State was represented by Alvin Ketcham, first speaker, Miss Celia Shanfarber, second speaker, and C. S. Hatfield, third speaker. Clarence M. Werum acted as alternate. Here the outcome was just reversed, Illinois claiming the victory. The same question as above was debated but in this case O. S. U. had the negative.

Each of Ohio State's teams was under the direction of Debating Coach Brown.

#### **Professor Heller Dead**

This came as a surprise to many but to a few it had been known for some time that recovery was impossible, the cause of death having been tuberculosis. Prof. Heller had been unable to attend to his instructoral duties since early in January. He was born in 1866 at Wapakonetta, Ohio. In 1890 he was graduated from the civil engineering department, Ohio State University, and from that time till 1902 he was connected with his favorite line of work, that of designing and constructing bridges and large steel structures. In 1902 he accepted the position of professor of civil engineering at this institution which position he held until his death, on February 20. Burial took place at Wapakonetta, Thursday at 2 p. m.

The University faculty adopted the following resolutions:

Professor Heller was an intense worker, deeply interested in his subject and a most painstaking instructor. His learning in his subject and his conscientious devotion to duty commanded the respect of all those who came in contact with him, either as a student or colleague.

Resolved, In the death of Professor Heller this faculty has lost a highly esteemed member and the University a faithful and efficient servant.

Resolved, That this faculty extends its deepest sympathy to those dearest to him in their bereavement.

C. E. Sherman,  
F. H. Eno,  
Wm. McPherson,  
Committee on Resolutions.

## OHIO AGRICULTURAL EXPERIMENT STATION

### How to Fight Grasshoppers

BY H. A. GOSSARD.

From many quarters of the state we are receiving reports of damage by grasshoppers. Since we must not only suffer from their depredations the present year, but may also have to contend against ever greater numbers of them next year, if they are allowed to breed unmolested, this statement of methods of fighting them is submitted at this time.

For protecting gardens and limited areas from their attacks, good results are usually obtained from using a poisoned bran mash, prepared as follows: Stir together, while dry, two pounds of Paris green and twenty-five pounds of bran, then moisten with water that has been sweetened with molasses or dissolved sugar, making a wet but not sloppy mash. For plants set about three feet each way, use a tablespoonful near each plant, or the mash may be sown over the field broadcast. One treatment should not cost over one dollar per acre, labor not included. Keep poultry away from the poison.

To secure immunity from attack next year, the eggs should be destroyed this fall or early next spring. These are usually laid in compact ground, especially along roadsides and in the uncultivated borders of fields. Bare, high, sandy ground and closely grazed pasture land is especially resorted to for egg-laying. The female forces her abdomen into the earth for about one inch and at this depth the eggs are laid in a mass of about thirty in a pod-like cavity.

Fall plowing to a depth of eight or nine inches will effectually prevent any of the young hoppers from reaching the surface when they hatch in spring. Thoroughly harrowing infested land in late

fall, so the surface is torn up to the depth of an inch or two, will break open most of the egg nests and prevent hatching. Disking the land in early spring before hatching time will accomplish the same purpose. The insects hatch from about the middle of April until the middle of May in Ohio, depending on the latitude and on the forwardness or backwardness of the season.

The young nymphs may be poisoned with the bran mash, or oftentimes by burning. If the stubble or rubbish on the ground is insufficient to burn, scatter straw over the field and on cool days, when the insects have crept beneath it for shelter, set it on fire. If the surface of the ground is level, a heavy roller run over it, will crush many of the nymphs, especially on cool days or in the morning or evening.

When the nymphs are very numerous over large areas it is best to resort to ditching. The ditches are made two feet wide and two feet deep, with vertical sides. The sides next to the field to be protected must be kept finely pulverized and not allowed to become washed out or hardened. The right condition may be kept by dragging a brush composed of dead branches through the ditch as often as necessary. Pits should be sunk in the bottom of the ditch at short intervals in which the insects will accumulate where they can be easily buried. Where it is possible to flood the ditches with water, the water may be covered with a film of coal oil, and the insects can be rapidly and certainly destroyed by being driven into the ditches.

The hopper-dozer, much used in the northwest to destroy the nymphs, consists of a shallow receptacle of any convenient size, furnished with high back and sides, mounted either on wheels or runners. Large pans are provided with transverse partitions which prevent slop-

ping of the water and oil when the machine catches a jar. The pans are filled with water and coal oil or gas tar, and are then pushed by hand or horse power over the infested fields, a set of shafts and handles being so arranged that the front edge of the pan can be elevated or depressed at will to adjust it to the jumps of the nymphs. A suggested form for operation by hand power is made of ordinary sheet iron, eight feet long, eleven inches wide at the bottom, and turned up a foot high at the back, and an inch high in front. A runner extending some distance behind is placed at each end and a cord attached to each front corner. This may be drawn by two boys. With more hands, several dozers may be placed end to end in a row, one man holding the cords of each pair of contiguous ends, and thus the work may be done rapidly and well.

#### Truck Farming in the South

(C. Van Lenom, who was recently a student at the O. S. U., and is now connected with the Carolina Trucking Development Company, of Wilmington, N. C., sends us the following information in regard to the agricultural possibilities of this section, which should be of interest to the undergraduates who expect to go into the farming business and are on the lookout for openings in that line.—Ed.)

The Carolina Trucking Development Company has bought up in the Carolinas many thousand of acres of the finest trucking lands in the whole country, and proposes to divide this land into small farms, which will be colonized with the best and most thrifty class of farmers from European countries and froth other parts of the United States. The section around Wilmington where these lands



DAIRY HERD—O. S. U.



are located possesses in a superlative degree the five essential features for successful trucking, namely: Mild climate, abundant rainfall, excellent soil, good shipping facilities, and broad markets.

The climate is mild all the year around and extremes of heat and cold are unknown. Over eight months of the years are entirely free from frosts, which condition allows of three to five crops being raised on the same ground. The climate is healthful and delightful and fully as desirable as that enjoyed by many places which are being extensively advertised as health resorts.

The annual rainfall, as can be seen by reference to the government map, is greater in this section than in any other part of the United States, with the exception of a small area in California, another on the coast of the Gulf of Mexico, and another in the mountain section of Tennessee where truck farming is impossible. This rainfall of from 60-70 inches is so equally distributed throughout the year that the failure of crops, either from drought or excessive wet, is practically impossible.

The soils of the lands owned by this company are largely of Wilmington fine sandy loam and Southport fine sandy loam, which are similar to the Norfolk and Portsmouth types, and are unexcelled for trucking purposes. A great part of the land is gently rolling and naturally well drained. Where it is flat, it is readily drained by ditching and expensive tile draining is not essential to successful cultivation. The flat lands owned by this company are being ditched before being colonized.

Wilmington, which is the central point of the section, is tapped by five railroad lines, going out from it like the spokes of a wheel and reaching the entire trucking belt. These roads operate vegetable express service, giving quick transportation

to Philadelphia, New York, Boston, Montreal, and other points on the Atlantic seaboard, and also to interior points as far west as Chicago.

The population, which this section is in a position to serve, is estimated at not less than forty million people, which means a practically unlimited market. The truck from this section gets into market between the Florida shipments and shipments from points further north, and almost invariably command higher prices than either.

This company is at present disposing of its lands, in ten-acre farms, at from \$30.00 to \$50.00 an acre, on easy terms. Similar lands in this vicinity now being cultivated for trucking purposes, readily command a price of \$200.00 to \$300.00 per acre and are a good investment at that figure.

Phenomenal success has been achieved in the section around Wilmington, N. C., in the raising of such crops as strawberries and lettuce. At one point, for illustration, a thriving town of over 1,000 inhabitants has grown around a nucleus established about four years ago by a group of western farmers, who went in for strawberry farming. There have been no failures in the trucking business in this section, and there are plenty of authentic instances of men who came here ten years ago with practically no money, who are today worth from thirty to forty thousands of dollars, all made out of this business.

The company would be pleased to correspond with any of the O. S. U. men who feel interested in this proposition, and any letters of inquiry will receive prompt and courteous attention.

Rubiana's Standard, Guernsey, was the first prize bull of his breed at the National Dairy show, Chicago. Jewel of Farm Home won first in the Holstein class.

**American Horses**

F. E. ADDRESS.

[Condensed from "One Hundred Years of Commerce in America.]"

Of the horses and cattle brought to America by the Spaniards, the horses represented the best blood of the Arabian and the cattle were of the best then owned by the Moors. The once beautiful horse of the Arab was left to breed with the native stock of Mexico and now it is the saddle broncho of the western plains. The animals that came with the immigrants from Europe and the British Isles gave America such a mixed aggregation of traits and types as the world has never before witnessed. From that rare gathering of blood from every civilized land came our native cattle, wild horses, and the common hog and sheep. From these the pioneer bred, and their sons, in time improved them by importation and selection; aided by a temperate climate, fertile soils, abundant grasses and grains such as no other nation has ever furnished for a foundation and development of domestic animals. The mingling of blood from every nation has given us a class of domestic animals called native or common stock, which has been easily improved by the use of males of definite or fixed type. The

result has been to give the United States in one century the highest type and the greatest number of high grade and pure bred animals of any nation on the earth.

The thoroughbred was heavier at the beginning of the eighteen century than today. In past time this horse was bred for war purposes, now for business and pleasure. The invention of the Elliptic spring and the use of the American hickory in the production of vehicles, together with the invention of macadam and Telford roads, turned the demand from the running to the trotting horse, that is looked upon so favorably today. The first coach was introduced into New York in 1745, but coaches were scarce until after the revolutionary war, and not until 1840 when the light one-horse vehicle came into use, did the change in condition of travel develop a harness horse for the purpose of business and pleasure.

The new demand brought about a revolution in the breeding and training of horses. About the beginning of the eighteenth century there came from the lines of breeding of the thoroughbred, traceable to such noted horses as Flying Childers, Byerly Turk, and Darley Arabian, a gray, stoutly built horse of wonderful power and stamina, with a



A BELATED SNOWSTORM

flashing, open gait, just fitted to found a race of trotters. Thus was Messenger foaled in 1780, who became the progenitor of the trotting family in America. In 1849 Rysdyacks Hambletonian, the founder of the most noted family of trotters, was foaled. He was sired by Abdallah, who traced to Messenger by both sire and dam. The money value of the Rysdyack's Hambletonians that have beaten 2:30 can scarcely be computed. The stallion himself was purchased with his dam for \$125 and earned in the stud \$205,700. The money that has changed hands just in this one family would surprise the most eager horseman and set him to breeding this class of horses as so many have done, but a very few making a success of it.

Horse racing was favorably looked upon in the south, but this was not the case in the north. In 1820 Pennsylvania did not permit racing nor the printing of such matters, by a state law. In 1825 the New York Trotting club was organized to reduce the speed record or make a better class of roadsters. This was the first racing course or track in the world. In 1829 the Trotting club of Baltimore was organized. These facts show a change in the sentiment of the people, and the records began to fall. The keeping of records was a well established custom as early as 1829, when The American Turf Register began. It is estimated by good authority that the number of registered, standard bred trotters is over 120,000. The term "standard" indicates today ability of one or more ancestors to trot within 2:30.

Except the produce and incidental benefits to other breeds from the use of the blooded horse of England, no nation or age has produced a race of horses that exemplifies so forcibly the intelligence, pluck, enterprise and thrift of a people as the full history of the evolution and suc-

cess of the trotting horse shows the character of the Americans. He has won his way against the prejudices of every nation and rival, until we find the English, French, German and Russians are buying the American trotter for the uses of pleasure, business and breeding.

The Americans have never developed a type of draft horse that could compete with the massive types in foreign countries, as France or England. The increasing heavy business of factories, jobbers, importers, and transfer and express companies in our well paved cities has called for a great number of powerful horses. This demand has led to the importing of heavy horses from France, England, Scotland and Germany.

The earliest importer of high class draft horses was Edward Harris, of Morristown, New Jersey, who in 1839 imported two mares and the stallion Diligence. This stallion left an impress upon the stock of New York and Eastern Pennsylvania which has been of great value. The next valuable importation was made by Charles Fullington, of Union county, Ohio, in the spring of 1851. He purchased and brought home from France the famous Louis Napoleon, a "short-legged," closely ribbed, blocky and compact gray, three-year-old. The style of the horse was ridiculed by horsemen of that region. In 1853 he was sold to A. P. Cushman, of DeWitt county, Illinois. After his colts in Union county proved his worth a company was formed for importing other horses of his type. The author of the "Percheron-Norman Stud Book" says of him that he was undoubtedly the best known and most popular French horse ever brought to America. Thus the French blood was introduced into the fertile plains west of the Allepanies.

The Percheron blood is still being used in America with great success.



The Clydesdale has been the strong rival of the Percheron at the horse shows and fairs. This breed is more popular in Canada than in the United States. No importations into the United States appear to have been made until about 1870, when John Reber, of Lancaster, Ohio, and the Fullingtons, of Union county, began the work. The largest breeders in America are: Colonel Hollaway, of Illinois; N. P. Clark, of Minnesota, and R. B. Iglavie, of Wisconsin. The American Clydesdale Stud Book has been published, containing 8,000 entries.

Of the foreign coach horses the French and German have many friends in America. Mr. M. W. Dunham and McLaughlin Bros have imported many prize winners from France. Dr. Hartman is breeding the German coach horse, also the French coach.

In the west and south the mule as a draft and farm animal has long been of great service. General Washington was America's first successful breeder of mules. Mr. Curtis says that the king of Spain presented Washington with a jack from the royal stud in 1787. To these jacks were bred coach mares which produced such valuable animals that the southern planters began to breed their thoroughbred mares to jacks. The mule being more steady for draft, less liable to disease, less subject to lameness and being able to endure heat and hardship bet-

ter than the draft horse, so in the south the mule has superseded the draft horse.

### National Dairy Show

E. D. HOLL.

Never before in this country, and probably not in any country, has there been so extensive an exposition of the dairy interests in all departments as was assembled at the Chicago Coliseum during the month of February, from the fourteenth to the twenty-fourth, inclusive.

It was a mammoth exhibition of dairy machinery, apparatus and supplies, and of dairy cattle, as a whole unexampled in extent and in the perfection of its installation, around which centered the National Association of Creamery Butter-makers and thousands of creamerymen and managers, dairymen, governmental inspectors and officials, and business men directly or indirectly connected with every branch of the great dairy industry.

Added to this display and attendance were an exhibition of pure foods of no small proportions and the hundreds of persons interested in the protection and improvement of the food supply.

An excellent band entertained the throngs of visitors, while they inspected the many interesting exhibits, and the glitter of electric lights on every hand made a scene that will be long remembered.



MIRROR LAKE

The A. I. Root Co., of Medina, O., have sent the department of Horticulture, which now offers a course in apiculture, a collection of supplies for illustrating various phases of bee keeping. This donation is much appreciated. The department has also received a 100-pound sack of limoid for spraying purposes from the Charles Warner Company, of Wilmington, Del.

---

#### **U. S. Department of Agriculture—A Porto Rico Reserve**

That one of our national forest reserves is in Porto Rico is a fact of which very few people in the United States are aware. Yet both in the extraordinary variety of botanical species which its forests contain and in the picturesqueness and novelty of its scenery, this reserve stands second to none of those in our Western States, while it has the unique distinction of being the only tropical forest which this country owns on this side of the globe.

The Loquillo forest reserve was created by Presidential proclamation in January, 1903. It embraces some 65,950 acres of land in the eastern and most mountainous part of the island. Compared with most of the Western reserves this is small. But the whole island of Porto Rico is only about three-quarters the size of Connecticut, and consequently offers no room for a large reserve.

The Luquillo reserve was set aside from certain public lands in Porto Rico which were formerly the property of the Spanish Government. It is joined by private holdings and also to some extent by lands the title to which is now vested in the Insular Government, which is possessed of all lands not reserved by the Federal Government before June 30, 1903. The whole region within which the reserve lies has never been surveyed or accurately mapped, and the

boundaries between the private and public holdings are very vague and undefined. In practice the agriculturists to whom the private lands belong have pushed their clearings as far up the mountain sides as it was profitable for them to go, and have helped themselves more or less to whatever timber they needed from the accessible forest beyond. These depredations have not been, on the whole, very serious, owing to the tropical character of the forest and the difficulties of transportation, but the exact definition of the line between the reserve and the adjoining private owners is a pressing need.

To secure information concerning present conditions and a basis for recommendations to the Insular Government

Manager Davis submits the following for a future policy, Dr. John C. Gifford was sent by the Bureau of Forestry, in the summer of 1903, to make an examination of the reserve. He found that only about 20,000 acres are forest lands unclaimed by private owners, and half of this is in mountain peaks and palm lands, so that there are only 10,000 acres of productive timber. Nevertheless, the whole reserve stands in an important relation to the economic welfare of the people who live near it, and the benefits of its establishment will be increasingly manifest as time goes on.

Even to the natives the region embraced in the reserve is little known. It is a small wilderness of serrated mountains, tropical forest, and rushing torrential streams, concerning which all sorts of fantastic fables find currency. It covers a large part of the Sierra de Luquillo, a mountain mass separated from the mountains of the rest of the island by the valley of the Loiza, the largest river in Porto Rico. One of its peaks, El Yunque, is the highest mountain of the island, with an altitude of

some 3,300 feet. Upon the eastern slopes of these mountains, which face the sea, the westward-blowing trade winds pour an enormous precipitation, the heaviest in the island. In 1902 the total was almost 142 inches. This rainfall is well distributed throughout the year. In the highest mountains it is rare for twelve hours to pass without some rain. As a rule heavy, drenching showers alternate with bright sunshine. The result is violent fluctuations in the streams, which often leap into impassable floods and subside again within an hour or two.

It is as an agency for the control of these flood waters that the Luquillo Reserve is likely to render the most valuable service. To some extent the forest will even supply water for agriculture, for immediately to the south and west of the mountains the climatic conditions become very different from those on the always profusely watered eastern slopes. The country is drier, evaporation more active, and the vegetation correspondingly changes its character. So while parts of the island are drenched with water most of the time, other parts, half a day's ride distant, are dependent upon irrigation. But generally, it is against too much water rather than the want of it that the protection of the forest is needed. Even with the mountains forest-covered, floods have caused great destruction. Massive stone bridges have been carried away, roads damaged, farms and pastures ruined, and lives lost. Stripped of their forests, the mountains would soon be washed bare of soil and the lowlands swept by floods after every heavy shower.

What the value of the reserve will be as a source of timber supply is more or less problematical. Mahogany, if ever present in the forest, as seems probable, has been entirely exterminated, and the cigar-box cedar is also practically gone.

Valuable woods remain, but the essentially tropical character of the forest, in which a great number of species contend with one another for possession, makes the problem of management a very difficult one. "Weed trees" abound, and there is no uniformity of forest growth. Individuals of the same species occur scattered sparsely and irregularly through the dense forest, and it is an extraordinary fact that within so narrow a range as the island affords certain kinds which in some places grow to be large and beautiful timber trees, elsewhere exist as shrubs.

The best of the forest in the reserve is that found in the fertile gorges, ravines, and coves from 500 to 2,000 feet above sea level, where the trees are protected from the constant winds. There are four leading timber trees—the tabanuco, with a wood very like our sycamore, the laurel sabino, which would grade in the market with yellow poplar, the ausubo, comparable with black walnut, and the guaraguo, similar to red cedar. All these trees reach a large size, ranging from two to five feet in diameter. The tabanuco has, in addition, the very valuable characteristic that it tends to form pure or nearly pure stands. It produces a kind of gum which may prove to be an article of commercial importance.

Many climbing vines add to the density of the vegetation. There is also a species of grass which grows 5 feet high and cuts like a razor at the lightest touch. But the most abundant growth is that of the mountain palms. They are very beautiful, but of little or no value, and to get rid of them will be at once a necessary and most difficult matter if permanent production of salable timber is to be secured. They grow 40 feet high, and already cover fully half of the best part of the reserve. Yielding as they do an immense amount of seed, and grow-



ing very thickly, nothing else in the forest can compete with them for possession on anything like equal terms, so that unless they can be artificially held in check they will certainly gain most of the ground left vacant by the removal of trees cut for timber. They are true weed trees of the most aggressive kind.

Above two thousand feet altitude the trees are stunted, gnarled, and slow-growing, of many different species, with moss-covered limbs and roots often bare. They are of no commercial value, but are of great importance as a protective forest cover.

Doctor Gifford believes that the Luquillo Reserve should be cared for and developed along two distinct lines. From an economic point of view it should be managed to secure the best returns from the sale of timber and other forest products, consistent with the maximum protection of the watersheds. It should also be made accessible to the public for its scenic attractions. Roads should be opened and fish and game introduced. At the same time from a scientific standpoint the extraordinary interest of its undescribed flora opens a splendid opportunity for studies of tropical forest botany. This report is now in press. When issued it can be obtained upon application to the Forester, United States Department of Agriculture, Washington, D. C.

The Dairy students gave a banquet on the evening of March 15, in Woods' restaurant. Mr. Rehl, a second-year student, acted as toastmaster. Responses were given by Professors Price, Plumb and Decker; also by Dr. Gay, Mr. Guthrie, Mr. Mangold and others.

The annual election of officers for the Agricultural Society was held Wednesday evening, March 7. The attendance

was better than usual, there being one hundred and thirteen votes cast. The following men were elected: President, R. L. Shields; vice president, I. G. McBeth; secretary, W. L. Slate.

O. S. U. Grange held an open meeting March 3. The speaker of the evening was Mr. C. M. Freeman, on the subject, "What is the Grange." Mr. Freeman is a most interesting speaker and we know that his lecture was appreciated by all.

### Vets Banquet

The first annual banquet of the O. S. U. Veterinary Medical Society was held in honor of Dean David S. White, at the Great Southern Hotel, on Wednesday evening, March 14. The tables were finely decorated. A sumptuous eight-course dinner was served in a style characteristic of the Southern management.

At the conclusion of the feast, the president of the Society, Mr. Youngberg, delivered the address of welcome, in which he set forth the object of the banquet. At the conclusion of his address he introduced as toastmaster, Dr. A. M. Bleile.

Toasts were responded to as follows: "Education as a Profession," Dr. Wm. O. Thompson.

"Success in Practice," Dr. Harry W. Brown.

"Problems of a Graduate," Dr. D. Hammond Udall.

"Senior Retrospectus," Mr. Geo. A. Pfaffman.

"Undiscovered Fields," Dr. Albert D. Fitzgerald.

"Our Sister Profession," Dr. James McI. Phillips.

"The V. M. Society," Mr. Arthur F. Schalk.

"Our Dean," Mr. Leo M. Steckel.

Mr. Steckel spoke in part: "We especially esteem him for his chivalrous character, his keen judgment, and his unselfish devotion to a noble purpose. His sound and ready advice whenever

asked does not fail to awaken in the heart of the hearer a true and friendly regard for the man. The noble example he has set forth spurrs us on to enter the work with vim and zeal. His motto, 'Use judgment and be scrupulous,' is a beautiful expression worthy to adopt as our guide. It is only a matter of regret that the time as students here is so short, but when our college days are over and we are engaged in the battle of life, we shall look back with pride, love and admiration to the man who



DAVID S. WHITE, D. V. M.

Dean of Veterinary Department, O. S. U.

has devoted his time and energy to prepare us for our calling, and who has helped elevate the status of the veterinary profession.

"And now, Dean White, may you be blessed with many years of health, vigor and happiness, that the work you have thus begun will be furthered under your able guidance. May the Ohio State University, under the leadership of its broad-minded president, and the Veterinary College, which you have raised to a level with the best schools of the country, be an everlasting source of knowledge and learning. May the ties of friendship we make here tonight as members of the V. M. S., as students, teachers and friends of the O. S. U., never be broken."

"Past and Present," Dean David S. White.

Dr. White expressed his appreciation of the honor extended him by the Society. He also spoke of the conditions of the Veterinary College as it was when he came here and that there is yet a great deal to be done for this department.

The program was very much enjoyed and every one present expressed a desire to attend the next annual banquet. After some lively cheering which wound up with the University yell, all left feeling that they had been amply repaid for attending.

### Early Grange Organizations

(From the report of National Grange.)

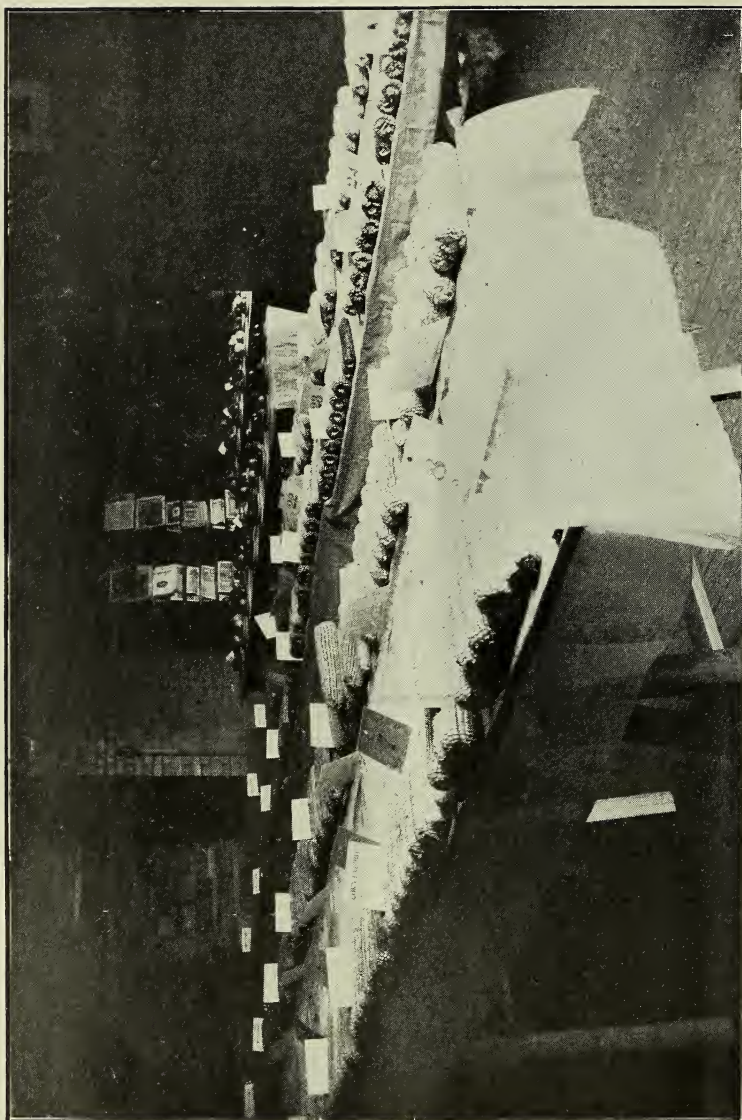
The first subordinate Grange was organized in Washington, D. C., the eighth day of January, 1868, as a school of instructions, with William M. Ireland as master.

The first dispensation for a Grange was granted at Harrisburg, Pa., the fourth day of April, 1868, but the first regular subordinate Grange to which a charter was issued was organized at Fredonia, U. Y., the sixteenth day of April, 1868.

The first State Grade, that of Minnesota, was organized the twenty-second day of February 1869. The new order made slow progress up to 1872, only 257 Granges having been organized in the entire country. During the year 1872, 1,105 were organized and the order had an existence in twenty-two states.

The first meeting of the National Grange, as a delegate body, was held at Georgetown, D. C., the eighth day of January, 1873, with six of the founders of the order and seventeen delegates present representing eleven states; six of the delegates were masters of State Granges and the remainder were deputies in the order. In addition to these, four women were present, viz: Miss Carrie A. Hall, Mrs. O. H. Kelley, Mrs. D. W. Adams, and Mrs. J. Abbott. The total number of Granges organized previous to this meeting was 1,362. Nearly 30,000 charters have been issued to January 1, 1900.





CORN EXHIBIT  
Work of Agricultural Students Union



### University News

Although the Hoosiers have been defeating Ohio State in all athletics heretofore and they came confident of one more victory, yet in spite of their previous record, on Saturday afternoon, March 10, the tables were somewhat turned. Ohio State won 45 points, Indiana 32, and eight points were protested. In each event first place counted five points, second three points, except in the relay and in that first place alone counted five points.

Ohio State won first in the 40-yard dash, Indiana second; shot put, Ohio State both first and second; half-mile run, Ohio State first, Indiana second; high jump, Indiana both first and second; quarter mile, Indiana first, Ohio State second; low hurdles, Ohio State first and second; two-mile run, Ohio State first and second; high hurdles, Ohio State first, Indiana second; pole vault, Indiana first, Ohio State second; mile run, Ohio State first and second, and relay, Indiana.

---

With due regard for Wooster and Oberlin, Ohio State really holds the championship in basketball for the year 1906. Contrary to the expectations of the former team she was defeated on Ohio State's floor Friday evening, February 23, by a score of 30 to 11. Later, March 3, our team also defeated Oberlin, the latter being the visiting team, score 29 to 17. Previous to her bout with O. S. U., Wooster met Oberlin both at home and abroad and as a result lost one game and won the other. Early in the season Oberlin defeated Ohio State. Were the latter to defeat Wooster on her floor the advantage would fall to O. S. U., while if she lost, conditions would be worse muddled up than ever, but she would still have a claim on the championship.

A pure bred gray Percheron mare has lately been purchased by the Animal Husbandry Department. This mare is coming four years old; weight, when in good condition, 1700 pounds, and, although eligible to registry in that class, her name has never been entered upon the records.

---

The Athletic Board met Monday evening, March 5, and granted "O's" to Barrington, Secrist, Foster and Hegelheimer for basketball work. The football schedule for next fall was considered and acted upon. It stands as follows: Otterbein, Depauw, Muskingum, Wittenburg, Michigan, Oberlin, Kenyon, Case and Wooster. There are two dates open so far which will probably be filled in with Cincinnati, Carlisle or Swathmore.

---

The student building, which is to be used as a club house and general meeting place for the students of the University, if erected, looks now as if it were to be a reality. Up to date over \$8,000 have been pledged. Something over 300 subscriptions have been made from a few over 400 students, making the average subscription somewhere between \$25 and \$30. The work is moving along nicely and if it continues as favorably during the next few weeks, the requisite amount, \$15,000 from the student body, will have been near enough reached to insure the erection of the building.

---

The Y. M. C. A. State convention was held in Toledo February 22-25. The convention met in the new Y. M. C. A. building, one of the finest in this state. Those representing Ohio State were C. C. Hatfield, C. H. Walworth, J. P. Pratt, H. J. Campbell, C. H. Bushfield, A. G. Elliott, W. B. Leighinger and M. C.

Williams. Altogether there were 410 delegates present.

Three pure bred Delaine Merino ewes have been recently purchased by the Animal Husbandry. These ewes come from the flock of C. S. Chapman, of Marysville, Ohio.

The Girls' Glee club under the leadership of Miss Ethel Bowman, gave a first class entertainment to a crowded audience in the University chapel, on March 2. The Glee club was assisted by the University Mandolin club and the Riodotto Ladies' Orchestra. Miss Ernestine Holterman acted as pianist.

The department of Agronomy has secured a set of samples representing the different commercial grades of grain, including wheat, oats, rye barley and corn. The samples each contain one peck of grain that has been officially graded by Chicago inspectors, and will be used for class work in crops.

The set comprises about forty pecks of grain in all and was secured through the Nebraska Experiment Station. Other samples will be added from time to time so as to make the exhibit as complete as possible.

The new catalogue will announce two new courses in Agronomy, Farm Grasses and Forage Crops as a fall term elective and the Construction and Sanitation of Dairy Buildings for the special dairy students.

On Saturday March 10, the class in dairying, under Professors Decker, Freund and Guthrie, visited the Hartman stock farm, five miles south of Columbus. They were met at the southern limit of the street car line by conveyances and given a free ride from there to the Jersey cattle barns, where some practical work was done on scoring milch

cows. Mr. Hugh G. Van Pelt, a graduate of Iowa Agricultural College, is now in charge of the herd.

Amendments to the Big Six rules were passed upon and adopted by Ohio colleges in general. The amendments are as follows:

First. "That no one except an undergraduate enrolled in a regular or special course in his college shall participate."

Second. "No student shall so participate until he shall have been in attendance in his college for one full collegiate year subsequent to attaining the equivalent of freshman rank in the liberal arts course or the four-year engineering course."

Third. "No student shall participate more than three years in the aggregate. This rule to go into effect year after year next—1907-8."

#### Agricultural News

According to statistics compiled by the Department of Agriculture, the average value of the horse today is fixed at \$80.72, or about \$10 more than the statistics show for last year, the average price being then \$70.37. The average value of horses has increased since the year 1902 when in that year it was \$58.61.

"In union there is strength," so think a number of milk shippers in certain points of Illinois, who have organized a protective union. Their daily shipments when spring comes will be close to 3000 gallons.

Professor Selby, of the Experiment Station, warns the farmers against the potato blight for the coming season. He thinks this foe will be especially dangerous this year and he says to be ready for it with bordeaux mixture. Begin spraying as soon as the plant appear above

ground and repeat every ten days till September. Here is the way to prepare your bordeaux: Dissolve 6 pounds of copper sulphat in 5 gallons of water and then add 25 gallons more of water. In another vessel shake 4 pounds of quicklime and add to it 25 gallons of water; mix the solutions. Add one-quarter pound paris green on london purple to kill insects.

---

Farmers Bulletin No. 234, issued by the Department of Agriculture, is a treatise on Cement Mortar and Concrete; Their Preparation and Use for the Farm. As we have had the Stone Age and subsequent "Ages" we now come to the Cement Age. Every farmer who contemplates the using of cement in any form or for any purpose should have this bulletin and it may be had by writing your Congressman. A reprint is given in the Scientific American issue of March 10, 1906.

---

A writer in Hoard's Diaryman grows corn and sunflowers together, both of which he runs into the silo. He reports as follows: Cattle like this combination. We plant in drills, having previously mixed one handful of sunflower seed to a planter box of corn. When time for cutting we use the common corn binder. Chop all up together and put into the silo. The kind of sunflower grown is the large Russian as it is ripe by the time corn is glazed and ready for the silo.

---

A journal of the Jananese Horticultural Society was begun in the year 1889. The last issue, that of January, 1906, contained several important articles written by natives of that country. The articles together with the illustrations show the results of increasing intercourse with western nations.

While we are not used to thinking of the Japanese as horticulturalists, still you will find with the department under that heading here in the University a collection of over one hundred specimens of woods native to Japan. You will also find the numbering of these pieces of wood rather unique. Examine them.

---

#### Alumni Notes

Victor A. Hosmer, short course, is farming at Middlefield, Ohio, R. R. No. 2.

---

Walter B. Horr, dairy class of '03, after completing this course took up work as creameryman at Leesburg, O.

---

Chas. P. Hoover, ex-'06, is now in the College of Ats, O. S. U.

---

C. M. Davis, short course, has accepted a position with the Wawa Farms, near Philadelphia. While in the University Mr. Davis was connected with the Dairy department, being laboratory assistant in the same and we understand that the work which he is about to take up is along the same line as his chosen occupation.

---

Frank E. Hamilton, B. Sc. (Agr.) '03, after graduating at O. S. U., received an appointment to the Berea College, Berea, Ky., as foreman of the college farm. He is at present performing the same duties and is also instructor in agriculture in the same institution. Mr. Hamilton was for one year before his graduation, foreman of the University farm at O. S. U.

---

Ralph Hathaway, ex-'04, whose present address is Scipio Siding, Ohio, is farmer and teacher at that place.

---

George H. Henning, ex-'07, is farming near Louisville, Ohio.



Edward S. Coberly, who nearly completed the course in Horticulture and Forestry last year, and who will take his degree in June, is now engaged in the real estate business in Columbus. Mr. Coberly has had a good position with the United States weather service for the past three years, and is now enjoying a furlough.

E. C. Cotton, B. Sc. (H. and F.) '05, is now located at Baton Rouge, La. He is in the employ of the Crop Test Commission, of Louisiana, and is now engaged in a preliminary investigation of orange insects, particularly the purple scale and white fly, which are serious pests. He is also preparing to carry out an elaborate series of fumigation experiments, with a view to the control of the above named pests, and to find out what strength of cyanide gas nursery orange trees will stand without injury.

Writing to Prof. Lazenby under date of February 22, Mr. Cotton says: "Spring is opening up fast here, peach, plum, cherry and pear trees being in bloom. It is said that if fruit gets safely past February 15, in this locality, all danger from frost is over."

Since leaving for his new field of labor Mr. Cotton's graduating thesis, "The Insects Affecting the Black Locust and Hardy Catalpa," has been published by the Ohio State Board of Agriculture. It appears as Bulletin No. 7 of the division of Nursery and Orchard Inspection.

This publication is an extremely important one at this time, and the fact that it is published by the State Board of Agriculture is quite a compliment to its author.

E. E. Finney, B. Sc. (Agr.) '05, is now in the employ of a Mr. Smith, who owns over 600 acres of land, largely out of cultivation, near Marengo, Ohio; also

some sixty or seventy Shorthorns and a few Polled Durhams. Mr. Finney is foreman of the farm, including the live stock. His address is Marengo, Ohio, R. D. No. 4.

Walter C. Hill, ex-'98, M. D., (Western Reserve) '03, is practicing at the Lakeside Hospital, Cleveland, O.

Louis Hedrick, ex-'07, whose present address is South Charleston, Ohio, is employed as clerk to the ticket receiver of the Pennsylvania company.

Charles A. Miner, B. Sc. (H. and F.) '05, has recently gone to California, where he expects to embark in fruit culture. We wish him the most abundant success in his new field of labor.

Willis G. Harry, ex-'00, is manager of the Wieting & Richters Rice Mills, in Georgetown, Demarara, British Guiana, South America.

Richard M. Hayes, dairy class of '02, is cheese maker at Kinsman, Ohio.

Scott G. Harry, ex-'07, is in the office with Professor Selby at the Ohio Agricultural Experiment Station, Wooster, Ohio.

Melvin J. Harris, ex-'01, and located near Garrettsville, Ohio, R. R. No. 27, is engaged in farming near there.

Merrit Harper, B. Sc. (Agr.) '01, M. Sc. (Iowa) '02, has been for some time back with the University of Missouri, Columbia, Mo. Mr. Harper is also assistant in agriculture at the Missouri Experiment Station.

Wm. C. Hamilton, short course, class of '96, is farming at Gratiot, Ohio, R. R. No. 14.

C. C. Hayden, B. Sc. (Agr.) '03, is with the University of Illinois, Urbana, Ill. Mr. Hayden is assistant in the department of dairy division at the college and is also employed at the Illinois Experiment Station.

---

Philip Hiltour, ex-'97, is farming near Delphos, Ohio, R. R. No. 5.

---

Leslie A. Harter, ex-'05, whose address is Delaware, Ohio, R. R. No. 3, is running a dairy farm near that place.

---

George U. Horn, ex-'02, whose address is 194 Wilson avenue, Columbus, Ohio, is employed as assistant observer in the United States Weather Bureau of this city.

---

## UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE

### Some Forest Possibilities of Florida

Richly endowed, like her sister states, with a wealth of forest resources, Florida invites lumbermen. The chief southern pines—longleaf, shortleaf and loblolly—together with cypress, which form the basis of lumbering industry in the east, extend into the state, and, with some changes in the composition of the forest there, offer abundant supplies of well-tried timbers. Cuban pine, which has a scattered growth along the coast plain of the south in general, is abundant along the western coast in pure stands or in mixture with longleaf pine and cypress. At the southern end of the state cypress swamps abound. On the coast islands along the southern shores, mahogany in good quantity awaits the ax. Finally, the naval stores industry, which draws principally upon the longleaf and

shortleaf pines, finds in Florida a plentiful source of supplies.

Cuban pine seems destined for more important commercial use than it has hitherto enjoyed. Its wood is scarcely or not at all inferior to that of longleaf pine, with which, in some localities, it is cut indiscriminately. For preservative treatment is relatively greater porosity may make it even more valuable for specific service than is longleaf. In the past the Cuban pine lands in Florida have been cut only moderately. As the dwindling timber sources feel the stronger pressure of demand, this tree is certain to receive its full share of utilization. The superior grade of resin which it produces further adds to its commercial value.

Already there are signs of increased attention to the Florida pines. This is shown by the calls which have recently been made on the National Forest Service for information and assistance, as well as by the effort which was made, though vainly, a couple of years ago, to secure the passage of a bill providing for cooperation between the National Government and the State of Florida. Several private owners have applied to the government for working plans under which to manage pine lumbering conservatively, and one application is for a tract of 1,600,000 acres.

This tract lies on the west coast and consists of very low lands with a stand composed chiefly of Cuban pine and cypress. It is subject to constant flooding during the rainy season, and the water retards the growth of timber seriously. This has brought out the question whether much of the land may not be drained without too great expense. If economical drainage can be carried out on a sufficiently large scale, it is expected that the rate of growth and the quality of pine timber on thousand of acres may

## Fine Ground Phosphate Rock

Contains more Phosphorus and Phosphoric Acid THAN GROUND BONE MEAL and cost 50 per cent. LESS. Prices, Pamphlets and Testimonials on application.

**ROBIN JONES,**

No. 14 Steger Building,  
NASHVILLE, TENN.

### Learn Telegraphy and R. R. Accounting

\$50 to \$100 per month salary assured our graduates under bond. You don't pay us until you have a position. Largest system of telegraph schools in America. Endorsed by all railway officials. **Operators always in demand.** Ladies also admitted. Write for catalogue.

#### MORSE SCHOOL OF TELEGRAPHY,

Cincinnati, O., Buffalo, N. Y., Atlanta, Ga.,  
La Crosse, Wis., Texarkana, Tex., San Francisco, Cal.



**W. & W. Sewing Machines**  
are used in the Domestic  
Science Department of the  
Agricultural College of  
Ohio.

be very greatly improved. Timber is the only available crop on such land, for it is too sandy for agriculture, so that whatever will insure profitable timber crops will lend it the only commercial value which it is at all likely to have. Detailed study of the ground will be necessary to determine just what advantages drainage will secure.

Florida forests are unfortunately exposed to great danger from fire. In this they are like the southern forests in general, but the practice of burning the ground over to improve grazing is firmly established, and whenever this is the case the forest is especially threatened. Much difficulty will doubtless be met with in the effort to change the custom. Some of the oldest settlers throughout the south, however, are now beginning to recognize that burning does not improve grazing in the long run, because it kills out the more valuable grasses. They admit that the forage crops on the open forest stands of the region has been steadily deteriorating during the past forty years as a result of these injurious fires.

### Napanoch Pocket Knife Tool Kit

The most useful pocket knife combination ever made. With more or less frequency every one has use for a knife, reamer, file, saw, chisel or screw driver, and this outfit is so practical, yet so small that it may be carried in the pocket, always ready for immediate use. Any tool can be attached or removed in one second.

Made by skilled American labor of the best material and guaranteed.

Only \$2.50 each. Address U. T. Ulery, 7 Warren St., New York.



# Clay, Robinson & Co.

## Live Stock Commission

Chicago  
Denver

South Omaha  
So. St. Joseph

Kansas City  
Sioux City

So. St. Paul  
East Buffalo

The best of men and methods in each department at all houses.

YOU ARE INVITED TO VISIT

## BAKER ART GALLERY

STATE AND HIGH STS.

# For the FINEST Photos

The only Gold Medal awarded an American Photographer  
at the Paris Exposition

Special Rates to Students

# America's Leading Horse Importers

At the 1905 International Live Stock Exposition Won the  
Greatest Victory of the Age.

ROSEMBERG—Grand Champion Percheron Stallion.

APROPOS—Grand Champion French Coach Stallion.

18 First Prizes.

43 Prizes in all.

Champion Group of Percheron Stallions,  
over three years old.

Champion Group of Percheron Stallions,  
under three years old.

Champion Group of French Coach Stallions.

Champion Group of Belgian Stallions.

## THE BEST HORSES IN THE WORLD

The First Prize Winners and Champion Stallions at all the leading shows of both  
Continents are now For Sale in the stables of

# McLAUGHLIN BROS.

COLUMBUS, O.

KANSAS CITY, MO.

ST. PAUL, MINN.

If you saw it in THE STUDENT, tell the advertiser so.

## THE PHOTOGRAPHS

MADE BY

# INNIS & KIEFER

199-201 S. HIGH ST.

are the best that experience, skill and the knowledge of that which is artistic can produce.

The highest award over all Columbus and Central Ohio Photographers for four successive seasons is one of the many proofs of the exclusiveness and quality of our work.

## A. H. HARMON,



HIGH-GRADE  
MERCHANT  
TAILORING

POPULAR PRICES

GREAT  
SOUTHERN  
BUILDING,

COLUMBUS, O.

CITIZENS PHONE

2958

BERNARD W. PAYNE

MORTON McDONALD

## Payne-McDonald Hardware Company

1204 North High Street

Telephone 2 on 366

COLUMBUS, OHIO

## The Berlin Printing Company

PRINTING

OF EVERY DESCRIPTION

79-89 NORTH THIRD STREET

TELEPHONES

CITIZENS . . . 4157

BELL . . . 227

# 10 Per Cent. Discount to Students

## Stylish Clothes

Do you enjoy the luxuriousness of having your clothes made to order? If you do and appreciate High Grade Tailoring at reasonable prices, we're at your service. We're Tailoring experts and we bow to no superior talent in the Tailoring Business

## HIGH STREET TAILORS

SMART TAILORS

166 North High Street

# LONG & KILER'S

Original Bookstore of O. S. U. and managed by University  
Graduates

We are Extensive Dealers in

## SECOND HAND BOOKS

which means a great saving to the student

LARGEST FOUNTAIN PEN DEALERS IN THE CITY

BEAUTIFUL LINE OF O. S. U. PINS

Removed from Main Building O. S. U.

ELEVENTH AVE. AND HIGH ST.

---

**228 to 230  
North High Street**



**Popular Prices**

---

**Bucher Engraving Co.**

COLUMBUS, OHIO

Make engravings of all kinds.  
A large corps of competent operators and artists enable us to make work just a little better than you are used to getting. We have some pretty samples you can have for the asking.

**Bucher Engraving Co.**

COLUMBUS, OHIO

80½ North High St.

Our Advertisers are Reliable. Patronize them.



## MAN-A-NA

A most common expression of the people in Spain is Man-a-na, meaning To-Morrow. They don't work very hard, have a hard time to really do the work they ought to do, and consequently, don't get ahead very much.

This is a bad thing for them—and it is a bad thing for any live stock owner to adopt the same motto, for every day that passes means so much more damage to the stock.

The lice, mange mites and the scab mites do not wait until to-morrow, but go right ahead feeding on the animals, and consuming your good feed, so that instead of feeding the animals, you are feeding pests and lice. Kill every last one of these pests and lice by using

## Chloro-Naphtholeum Dip and Livestock Disinfectant

which will absolutely do the work, and at the same time, heal all wire cuts, sores, wounds and bruises, stimulate the growth of the hair or wool, and put the stock back into a prime, physical condition and make them thrifty.

Without asking you to make a promise or to pay a penny, let us send you a gallon of Chloro-Naphtholeum Dip on thirty days' trial, use it according to directions, and if it does the work send us \$1.50 to pay for it—if it doesn't do the work, write us a letter, and we will tell you where to return whatever has not been used. You pay nothing at all, until Chloro-Naphtholeum Dip proves what we claim, and we leave the whole matter to you.

Do it now, for Man-a-na (to-morrow) doesn't always come.

**WEST DISINFECTING CO.**

12 East 59th St.

New York.



## Chr. Hansen's DANISH

Butter Color

Cheese Color

Rennet Extract

Lactic Ferment

are acknowledged by all leading  
Dairy and Cheese authorities the

**STANDARD OF THE WORLD**

Chr. Hansen's Laboratory,

P. O. Box No. 1052 LITTLE FALLS, N. Y.

## STUDENTS

Will receive a cordial welcome at

**KILER'S**

Headquarters for Everything  
Needed by the Student

**Kiler's Pharmacy**

1441 N. High  
Cor. Eighth Ave.

**Aseptic Soda Water**

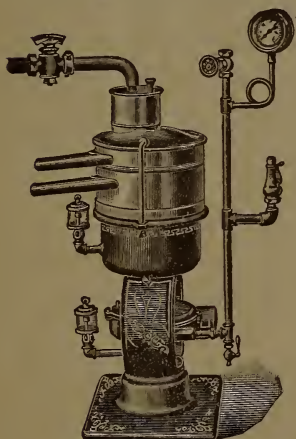
We are complete outfitters of all plants for handling milk products. If you are in the dairy manufacturing business in any capacity and want to keep up with latest and best methods, or if you are thinking of going into it, the first thing to do is to get into communication with us. We are at your service in the planning, building and equipping of Creameries, Cheese Factories, Sanitary Milk Plants and Private Dairies. Our experience in this line is worth money to you, yet it costs you nothing but the asking.

**CREAMERY PACKAGE MFG. CO.**

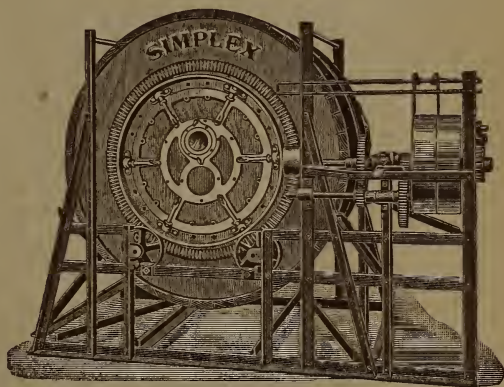
182 TO 188 E. KINZIE ST.

CHICAGO

## TWO OF OUR SPECIALTIES



**"SIMPLEX" Link-Blade Cream Separator.**



**"SIMPLEX" Combined Churn and Butter Worker.**

We manufacture other specialties for use in creameries, cheese factories and dairies  
"SIMPLEX" Regenerative Pasteurizer, "B. & W." Heaters; Check Pumps and Steel Vats  
'FACILE' Babcock Milk Testers; Sprague Continuous Pressure Adjustable Cheese Presses, &c.  
Send for our general illustrated catalogue.

**D. H. BURRELL & CO., Little Falls, N. Y**

## A Big Difference

**One Minute's Washing** as compared to at least fifteen. Wouldn't you like to save at least fourteen minutes twice a day? **One minute** with a cloth and brush cleans the absolutely simple Sharples Dairy Tubular Cream Separator bowl shown in the upper picture. It takes fifteen minutes to half an hour with a cloth and something to dig out dents, grooves, corners and holes to clean other bowls—one of which is shown in lower picture.



**Washed in 1 minute**

**Count the pieces** — notice the difference—and you'll understand why the one who has to do the cleaning prefers the simple Sharples Tubular.

There are other advantages just as much in favor of the Tubular. Write today for catalog V- E—it tells you all about the gain, use, and choice of a separator.

**The Sharples Separator Co.**

West Chester, Pa.

Toronto, Can.

Chicago, Ill.



**Washed in 15 to 30 minutes**